

Notice of Allowability

Application No.

09/963,334

Examiner

NGOC V DINH

Applicant(s)

PEREIRA, JOSE P.

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/24/2004.
2. ☒ The allowed claim(s) is/are 1-10,13-15,17-45,47-84 and 86.
3. ☒ The drawings filed on 24 September 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This office action is response to amendment filed 09/24/2004.

Claims 1, 13-15, 23, 35, 40, 45, 47-48, 52, 58-63, 65-70, 78-84, 86 have been amended.

Claims 11-12, 16, 46, 85, 87 have been canceled.

Reasons for allowance

2. The primary reasons for allowance of claim 1 in the instant application is the combination with the inclusion of at least the limitation of “a most significant bit of the comparand value is greater than the most significant bit of the upper value, ... the upper value minus the value represented by the most significant bit of the upper value”.

The primary reasons for allowance of claim 14 in the instant application is the combination with the inclusion of at least the limitation of “a most significant bit of the first comparand value is less than the most significant bit of the lower value, ... the lower value minus the value represented by the most significant bit of the lower value”.

The primary reasons for allowance of claim 15 in the instant application is the combination with the inclusion of at least the limitation of “the first compare circuit including circuitry to output a first result signal in a first state if the comparand value is greater than the first boundary value and in a second state if the comparand value is less than the first boundary value;”.

The primary reasons for allowance of claim 23 in the instant application is the combination with the inclusion of at least the limitation of “a compare circuit coupled to the first storage circuit to receive the first value and coupled to a mode signal line to receive a mode signal, ...the comparand value is greater than the first value when the mode signal is in a first state, ... the comparand is equal to the first value when the mode signal is in a second state”.

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The primary reasons for allowance of claim 29 in the instant application is the combination with the inclusion of at least the limitation of “a first compare circuit ... having a select input to receive a level select signal, ... if the level select signal is in a second state and if the comparand value is less than the first value”.

The primary reasons for allowance of claims 35, 40, 58, 65 in the instant application is the combination with the inclusion of at least the limitation of “to compare a comparand value to a range defined, at least in part ... if the mode select signal is in a second state”.

The primary reasons for allowance of claims 45, 47 in the instant application is the combination with the inclusion of at least the limitation of “the first plurality of CAM cells ... to output the first result signal when operated in the range mode”.

The primary reasons for allowance of claims 48, 70 in the instant application is the combination with the inclusion of at least the limitation of “the first plurality of CAM cells are responsive to a mode select signal ... to output the first result signal when operated in the range mode”.

The primary reasons for allowance of claim 52 in the instant application is the combination with the inclusion of at least the limitation of “the CAM device includes multiple independently searchable storage blocks ... in one of the searchable storage blocks”.

The primary reasons for allowance of claim 78 in the instant application is the combination with the inclusion of at least the limitation of “setting a mode select signal to select a range compare mode ... a lower range limit”.

Because claims 2-10, 13, 17-22, 24-28, 30-34, 36-39, 44, 51, 53-57, 59-64, 66-69, 71-77, 79-84, 86 depend directly or indirectly on claims 1, 15, 23, 29, 35, 40, 45, 48, 52, 58, 65, 70, 78. These claims are considered allowable for at least the same reasons noted above.

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Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Feldmeier et al PN 6289414 discloses partially ordered cams used in ternary hierarchical address searching/sorting.

b. Sherman PN 6389507 discloses CAM memory device search system and method.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ngoc Dinh whose telephone number is (571) 272-4191. The examiner can normally be reached on Monday-Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks, can be reached on (571) 272-4201. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

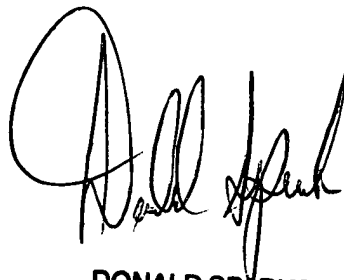


NGOC DINH

Patent Examiner

ART UNIT 2187

January 3, 2005



**DONALD SPARKS
SUPERVISORY PATENT EXAMINER**